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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,361	03/05/2002	Phil Delurgio	DEM1P010	9613

36088 7590 03/05/2007  
KANG LIM  
3494 CAMINO TASSAJARA ROAD #436  
DANVILLE, CA 94306

EXAMINER
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BORISOV, IGOR N

ART UNIT	PAPER NUMBER
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3628

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/092,361

Applicant(s)

DELURGIO ET AL.

Examiner

Igor N. Borissov

Art Unit

3628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 2/5/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 and 18-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 18-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                                  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____   |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/05/07 has been entered.

### ***Response to Amendment***

Amendment received on 2/05/07 is acknowledged and entered. Claims 15-17 have previously been canceled. Claims 1, 8, 18, 21 have been amended. New claims 24 and 25 have been added. Claims 1-14, 18-25 are currently pending in the application.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 8-14, 21-23 and 25 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8. The preamble of the claim indicates that the claim is directed to an apparatus, while the body of the claim recites software instructions. It is not clear to what extent the software instructions represent structural elements.

The remaining claims are rejected as being dependent on claim 8.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 8-14, 21-23 and 25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Claim 8, the preamble of the claim indicates that the claim is directed to two statutory classes of invention, the apparatus and a product, and, therefore, is considered to be directed to a non-statutory subject matter.

In order to obviate the claim rejections under 35 USC § 112 and 35 USC § 101, the examiner suggests the following language:

"8. A computer-readable medium having computer-readable instructions embedded therein, which, when executed by a computer, causing said computer to implement a method for forming a plurality of stores into a plurality of store clusters based on price optimization, and re-optimizing prices based on the plurality of store clusters, comprising:

collecting store specific information from a plurality of stores;

optimizing prices for a plurality of products for each individual store of the plurality of stores, and wherein the price optimization uses demand coefficients, cost coefficients and optimization rules;

creating a plurality of store clusters from the plurality of stores based on the closeness of optimized prices of the plurality of products for each individual store, based on store specific information, and based on demand group structure of the plurality of products, and wherein the demand group structure of the plurality of products is based on substitutable products;

re-optimizing prices for the plurality of products for at least one of the plurality of store clusters, and wherein the re-optimizing of prices uses demand coefficients, cost coefficients and optimization rules; and

providing the re-optimized prices to the at least one of the plurality of store clusters."

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-5, 8, 9, 10-13, 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Walser et al. (US 2006/0161504 A1).**

Walser et al. teaches a computer-implemented method for generating an optimized price, and a computer-readable medium having instruction to implement said method, comprising:

Claims 1 and 8,

collecting store specific information from a plurality of stores [0032]; [0008];

optimizing prices for a plurality of products for each individual store of the plurality of stores, and wherein the price optimization uses demand coefficients, cost coefficients and optimization rules [0007]; [0008]; [0010]; [0011]; [0061];

creating a plurality of store clusters from the plurality of stores based on the closeness of optimized prices of the plurality of products for each individual store, based on store specific information, and based on demand group structure of the plurality of products, and wherein the demand group structure of the plurality of products is based on substitutable products [0011]; [0012];

re-optimizing prices for the plurality of products for at least one of the plurality of store clusters, and wherein the re-optimizing of prices uses demand coefficients, cost coefficients and optimization rules [0014]; [0090]; [0092]; and

providing the re-optimized prices to the at least one of the plurality of store clusters [0014].

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Claims 2, 3, 5, 9, 10, 12, 13, 22, see reasoning applied to claims 1 and 8.

Claims 4 and 11. Walser et al. teaches that the combinations further include assortment and promotion combinations [0078]; [0079].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 6, 7, 13, 14, 19, 20, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walser et al.**

Claims 6, 7, 13, 14, 19. Walser et al. teaches all the limitations of Claims 6, 7, 13, 14, 19, except specifically teaching that the at least one constraint places *two* stores in the same cluster, or specifies a *maximum* number of clusters.

However, Walser et al. teaches that the invention may be extended to compute price schedules of portfolios of products while considering price schedules for groups of locations given price constraints between locations in the group, wherein inventory is distributed across a group of locations that are being optimized together [0011]; [0014], thereby suggesting any feasible combination of stores in a particular cluster.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Walser et al. to include that the at least one constraint places *two* stores in the same cluster, or specifies a *maximum* number of clusters, as suggested in Walser et al., because it would advantageously allow to determine an optimal feasible final solution, as specifically stated in Walser et al. [0061].

Claim 21, same reasoning as applied to claims 6, 7, 13, 14, 19.

**Claims 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walser et al. in view of Woo et al. (US 6,910,017).**

Claims 20 and 23. Walser et al. teaches all the limitations of Claims 20 and 23, except specifically teaching that said constraint places stores with a geographical closeness in the same cluster.

Woo et al. (Woo) teaches a computer-implemented method and system for optimizing prices, comprising:

creating a plurality of store clusters from the plurality of stores based on the closeness of the optimized prices of the plurality of products for each individual store (aggregating historical data into item classes and subclasses in accordance with an item hierarchy/parameter (C. 3 L. 64-67, C. 4 L. 1-47; C. 3, L. 5), wherein said clustering includes assortment and promotion combinations (C. 5, L. 61-63; C. 7, L. 9-12); and wherein the stores can be clustered based on a geographical location (all stores in New Jersey) (C. 4, L. 27-29).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify to include that the combinations further include that said constraint places stores with a geographical closeness in the same cluster, as disclosed in Woo et al., because it would advantageously allow to use different versions of the general model equation to reflect various factors and consider various constrains, as specifically stated in Woo et al. (C. 5, L. 61-63; C. 7, L. 9-12).

#### ***Allowable Subject Matter***

Claims 24 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1-14 and 18-25 have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

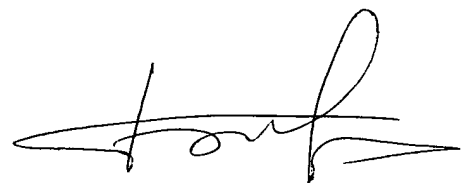
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, see form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Igor Borissov whose telephone number is 571-272-6801. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IB

02/22/2007

A handwritten signature in black ink, appearing to read 'Igor', with a stylized flourish extending to the right.

IGOR N. BORISSOV  
PRIMARY EXAMINER